[CLAIMS]

What is claimed is:

1. A liquid crystal display having a sealing material made of a photo-curing type material sealing liquid crystal sandwiched between two substrates comprising:

a blue-colored layer formed at an area of a shading film contacting with the sealing material; and

a light reactive area for a wavelength of blue color band characterized in the photo-curing type material of the sealing material.

2. A liquid crystal display provided as set forth in Claim 1, wherein the shading film comprises;

a shading area overlaying the blue-colored layer transmitting blue light with a red-colored layer to transmit color light and a green-colored layer to transmit green light;

wherein the red-colored layer, the green-colored layer and the blue-colored layer are respectively made of the same material as a forming material of color filters of red, green and blue formed corresponding to each pixel.

3. A liquid crystal display comprising:

a sealing material made of a photo-curing type material sealing liquid crystal sandwiched between two substrates, wherein at least one of areas of the sealing material contacting with one of the substrates overlaps with a shading film formed on one of the substrates.

4. A liquid crystal display having a sealing material made of a photo-curing type material sealing liquid crystal sandwiched between two substrates comprising:

a shading film formed on one of the two substrates;

a transfer added colored particles, formed at the lower portion of the shading film, and electrically connected to the two substrates; and

a light incident hole opened at the shading film above the transfer.

5. A liquid crystal display comprising:

two substrates sandwiching liquid crystal and opposing to each other;

a main seal attaching the two substrates at an external peripheral portion of a display area of the substrates;

a frame-shape structure formed in the area between the main seal and the display area; and

a black matrix picture-frame shading an area between the main seal and the display area;

wherein an external peripheral end of the frame-shape structure and an external peripheral end of the black matrix picture-frame are formed to be coincide with to each other viewing from a perpendicular direction to the substrates.

6. A liquid crystal display as set forth in claim 5, wherein the frame-shape structure has a height substantially half of that of a spacer arranged in the display area, a perpendicular alignment film being formed on at least one of a surface of the frame-shape structure and an opposing area thereof.

7. A liquid crystal display as set forth in claim 5 comprising:

a second frame-shape structure formed in an external area from the main seal;

wherein both sides of the main seal are surrounded by the frame-shape structure formed in an area between the main seal and

the display area main seal and the second frame-shape structure.

8. A liquid crystal display as set forth in claim 7, wherein a part or all of the second frame-shape structure is formed in the black matrix picture-frame and black matrix is not formed on the seal formation area.

9. A liquid crystal display having a sealing material made of a photo-curing type material sealing liquid crystal sandwiched between two substrates comprising a light-reflection layer having a concavo-convex structure formed in an area contacting with the sealing materials of at least one of the two substrates.

10. A liquid crystal display having a maim seal formed in a frame shape containing a photo-curing type material sealing liquid crystal sandwiched between two substrates comprising a interconnecting structure having a peeling strength greater than that of the main seal partially arranged adjacent to a corner portion of the main seal and in an area being outside of the main seal and inside from an end portion of one substrate.

11. A liquid crystal display having a maim seal formed in a frame shape containing a photo-curing type material sealing liquid crystal sandwiched between two substrates comprising a structure having a thickness equivalent to a cell gap and a L-shape in accordance with a corner shape of Black Matrix picture-frame for shading, and arranged adjacent to a corner portion of the main seal and in an area being inside of the main seal and outside of a display area.

12. A liquid crystal display having a sealing material made of a photo-curing type material sealing liquid crystal sandwiched

between two substrates comprising a light-reflection layer formed in an area contacting with the sealing material of the two substrates.

13. A liquid crystal display as set forth in claim 12, wherein the light-reflection layer has a line-and-space pattern and formed with a displacement of approximately half pitch between the two substrates.

14. A liquid crystal display as set for in claim 12, wherein the light-reflection layer of at least one of the two substrates is made of the same material as a formation material for a bus line.

15. A liquid crystal display having a sealing material made of a photo-curing type material sealing liquid crystal sandwiched between two substrates comprising an alignment film formed adjacent to the sealing material of the two substrates for perpendicularly aligning the liquid crystal molecules.

16. A liquid crystal display having a sealing material made of a photo-curing type material sealing liquid crystal sandwiched between two substrates comprising:

two electrodes opposing between the two substrates and provided at an area between pixel display areas and the sealing material.

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17. A liquid crystal display sealing liquid crystal by attaching opposing two substrates using a sealing material formed outside of a display area forming a plurality of pixels comprising a plurality of structures formed inside the sealing material for controlling spreading of dropping liquid crystal.

18. A liquid crystal display as set forth in claim 17, wherein the plurality of the structures are distributed on the substrate at a predetermined arrangement density or a predetermined arrangement shape.

19. A liquid crystal display sealing liquid crystal by attaching opposing two substrates using a sealing material formed outside of a display area forming a plurality of pixels comprising a concave shape structure provided in a frame shape inside the sealing material and outside the display area, at least on one of the two substrates.

20. A liquid crystal display sealing liquid crystal by attaching opposing two substrates using a sealing material formed outside of a display area forming a plurality of pixels further comprising a hollow frame-shape sealing material formed at an external periphery of the sealing material.

21. A method of fabricating a liquid crystal display having processes of sealing liquid crystal by attaching two substrates with a sealing material made of a photo-curing type material, and curing the sealing material by irradiating light to the sealing material comprising:

using a photo-curing type resin having a light-reactive area to light of a wavelength of blue color band as the photo-curing material; and

forming only a colored layer transmitting light of a blue color band at a shading film area contacted by the sealing material when attaching the two substrate.

22. A method of fabricating a liquid crystal display as set forth in claim 21, wherein the forming step comprises simultaneously

forming the colored layer at a formation time of a blue color filter formed on a pixel.

23. A method of fabricating a liquid crystal display having processes of dropping liquid crystal at a plurality of positions on one of substrates, attaching the one of the substrates with the other substrate via a sealing material made of a photo-curing type material, and curing the sealing material by irradiating light thereon comprising:

forming at least a part of a contacting area to the other substrate of the sealing material so as to overlay with a shading film formed on the other substrate; and

curing the sealing material by irradiating light on an area containing a color filter formed on the other substrate.

24. A method of fabricating a liquid crystal display comprising:

forming a main seal by depositing ultraviolet-light-curing resin at an external peripheral portion of a display area of a substrate;

forming a frame-shape structure, which shades ultraviolet light, at an area between the main seal and the display area;

sandwiching liquid crystal by attaching the substrate and an opposing substrate; and

curing the main seal by irradiating ultraviolet light from a horizontal or diagonal direction to the substrate surface.

25. A method of fabricating a liquid crystal display as set forth in claim 24 wherein the curing step comprises mounting the substrate on a substrate stage forming a concavo-convex structure, and reflecting ultraviolet light irradiated from the diagonal direction to the main seal with the concavo-convex structure.

26. A method of fabricating a liquid crystal display having processes of dropping liquid crystal at a plurality of positions on one of substrates, attaching the one of the substrates with the other substrate via a sealing material made of a photo-curing type material, and curing the sealing material by irradiating light thereon comprising:

using a polarized light in the curing process.

27. A method of fabricating a liquid crystal display as set forth in claim 26, wherein the using step comprises making a polarized axis of the light to be coincident with a minor axis of molecules of the liquid crystal.

28. A method of fabricating a liquid crystal display having processes of dropping liquid crystal at a plurality of positions on one of substrates, attaching the one of the substrates with the other substrate via a sealing material made of a photo-curing type material, and curing the sealing material by irradiating light thereon comprising:

irradiating the light after perpendicularly aligning the molecules of the liquid crystal adjacent to the sealing material.

29. A method of fabricating a liquid crystal display as set forth in claim 28, wherein the irradiating step comprises perpendicularly aligning the molecules of the liquid crystal having a positive dielectric anisotropy and being at lest adjacent to the sealing material by applying a voltage between the substrates.

30. A method of fabricating a liquid crystal display having processes of dropping liquid crystal at a plurality of positions on one of substrates, attaching the one of the substrates with the

other substrate via a sealing material made of a photo-curing type material, and curing the sealing material by irradiating light thereon comprising:

including a photo-polymerization-type material in the liquid crystal; and

curing the sealing material after curing the liquid crystal by irradiating light thereon.

31. A method of fabricating liquid crystal display having processes of dropping liquid crystal at a plurality of positions on one of substrates and attaching the one of the substrate with the other substrate comprising:

varying dropping amount of the liquid crystal depending on a dropping position.

32. A method of fabricating liquid crystal display having processes of dropping liquid crystal at a plurality of positions on one of substrates and attaching the one of the substrate with the other substrate comprising:

dropping the liquid crystal by combining a plurality of dropping patterns deciding a dropping position.

33. A method of fabricating liquid crystal display having processes of dropping liquid crystal at a plurality of positions on one of substrates and attaching the one of the substrate with the other substrate comprising:

dropping the each liquid crystal at a position the spreading distance of the liquid crystal is equal to that of liquid dropped adjacently.

34. A method of fabricating a liquid crystal display as set forth in claim 33, wherein the dropping step further comprises dropping

the each liquid crystal having substantially the same amount of liquid crystal, and the dropping step comprises dropping liquid crystal having less amount of the liquid crystal at a position the spreading distance of the liquid crystal is different from that of other liquid crystal dropped.

35. A method of fabricating a liquid crystal display having processes of dropping liquid crystal at a plurality of positions on one of substrates, attaching the one of the substrates with the other substrate via a sealing material made of a photo-curing type material, and curing the sealing material by irradiating light thereon comprising:

dropping the liquid crystal so as to overlap more than two kinds of liquid crystals having different component in the same dropping area in the dropping step.

36. A method of fabricating a liquid crystal display as set forth in claim 35, wherein the more than two kinds of liquid crystal having a first liquid crystal with relatively high reliability and a second liquid crystal with lower reliability, the second liquid crystal being dropped on a first liquid crystal dropped on a substrate after dropping the first liquid crystal.

37. A method of fabricating a liquid crystal display having processes of dropping liquid crystal at a plurality of positions on one of substrates and returning the substrates to a pressurized state after attaching the one substrate and the other substrate via a sealing material under a pressure reduction comprising:

forming a structure for controlling spreading of dropping liquid crystal on the substrate.

38. A method of fabricating a liquid crystal display as set forth

in claim 37, wherein the step of forming comprises controlling an arrangement density or arrangement shape of the structure so that spreading speed of the dropping liquid crystal is high in the diagonal direction of the sealing material formed in a frame shape.

39. A method of fabricating liquid crystal display having processes of dropping liquid crystal at a plurality of positions on one of substrates and attaching the one of the substrate with the other substrate comprising:

reducing a pressure of an atmosphere under a state mechanically retaining at least the one or the other substrate when attaching the both substrates; and

switching the retention of the substrate from a mechanical retention to a retention by a electrostatic chuck when reached to a predetermined air pressure.

40. A method of fabricating liquid crystal display as set forth in claim 39, wherein the switching step comprises attracting and retaining the substrates at the air pressure less than 1×10^{-1} torr by the electrostatic chuck.

41. A method of fabricating liquid crystal display as set forth in claim 39 wherein the switching step comprises electrostatically attracting the substrates by applying a voltage of the same polarity for each panel formation area of a plurality of panel formation areas formed on the substrates by the electrostatic chuck.

42. A method of fabricating liquid crystal display as set forth in claim 41, further comprising a step of forming a conductive path electrically connecting between the plurality of the panel formation areas on the substrates.

43. A method of fabricating liquid crystal display as set forth in any of claim 39, further comprising a step of respectively attracting both of the one and the other substrates by the electrostatic chuck, and applying a voltage of the same polarity to opposing areas of the one and the other substrates when attaching the one and the other substrates by opposing to each other.

44. A method of fabricating liquid crystal display as set forth in claim 39, further comprising the steps of forming an electrode of the electrostatic chuck by alternating a positive electrode and negative electrode to be opposed like a comb shape, and electrostatically attracting the substrate by applying a voltage to the comb shape electrode in a panel formation area formed on the substrate.

45. An electrostatic chuck comprising:

an electrode attracting a substrate by applying a voltage having comb shape electrodes opposing by alternating positive and negative comb shape electrodes.

46. A method of fabricating a liquid crystal display having processes of dropping liquid crystal at a plurality of positions on one of substrates, attaching the one of the substrates with the other substrate via a sealing material made of a photo-curing type material, and curing the sealing material by irradiating light thereon comprising:

fixing the one substrate on the one of a parallel plates, pressing the other substrate attached to the one substrate by the other of the parallel plates, and curing the sealing material by irradiating light thereon.

47. A method of fabricating a liquid crystal display having processes of dropping liquid crystal on one of substrates, attaching the one of the substrates with the other substrate via a sealing material made of a photo-curing type material, and curing the sealing material by irradiating light thereon comprising:

forming a main seal in periphery of a panel area;

forming a dummy seal like surrounding the main seal at a predetermined space; and

forming a vacuum area in the space when attaching the substrates, and creating a gap of the main seal utilizing a power operating to the vacuum area under an atmospheric pressure.

48. A method of fabricating a liquid crystal display having processes of dropping liquid crystal on one of substrates, and attaching the one of the substrates with the other substrate via a sealing material made of a photo-curing type material, and curing the sealing material by irradiating light thereon comprising:

forming a main seal in a periphery of a panel area;

forming a dummy seal like surrounding the main seal at a predetermined space; and

dropping the liquid crystal inside the main seal and in the space.

49. A method of fabricating liquid crystal display having processes of dropping liquid crystal on one of substrates and attaching the one of the substrates with the other substrate comprising:

providing a concave shape structure defining a cell thickness inside of frame-shape sealing material formed on a substrate for attaching substrates and outside of a display area;

dropping liquid crystal having the amount sufficient for

filling the display area and the amount not sufficient for filling inside of the sealing material; and

draining a residual liquid crystal overflowing from the display area to a space portion formed between the sealing material and the concave shape structure when attaching the one and the other substrates.

50. A method of fabricating liquid crystal display having processes of dropping liquid crystal on one of substrates and attaching the one of the substrates with the other substrate comprising:

forming a frame-shape sealing material on a substrate for attaching substrates in double frame structure;

providing an open portion to flow out liquid crystal to the sealing material inside;

dropping liquid crystal having the amount sufficient for filling inside of the sealing material inside and the amount not sufficient for filling the inside of the sealing material outside; and

draining residual liquid crystal from the open portion to between the internal sealing material and the external sealing material when attaching substrates.

51. A method of fabricating a liquid crystal display as set forth in claim 50, wherein the providing step comprises providing the open portion at a side portion not facing to a terminal clamp portion of the sealing material inside provided on the substrate.

52. A liquid crystal display having a sealing material made of a photo-curing type material sealing liquid crystal sandwiched between two substrates comprising protrusions, for positioning when attaching the two substrates, formed on the two substrates.

53. A method of fabricating a liquid crystal display having processes of dropping liquid crystal at a plurality of positions on one of substrates, attaching the one of the substrates with the other substrate via a sealing material made of a photo-curing type material, and curing the sealing material by irradiating light thereon comprising:

curing the sealing material by irradiating the light after attracting attached substrates on a stage mounting substrates when attaching the substrates.

54. A method of fabricating a liquid crystal display having processes of dropping liquid crystal at a plurality of positions on one of substrates, attaching the one of the substrates with the other substrate via a sealing material made of a photo-curing type material, and curing the sealing material by irradiating light thereon comprising:

attaching both substrates so as to relatively shift end portions of the one and the other substrates; and

arranging an external connecting terminal for a panel inspection at a shifted area.

55. A liquid crystal display as set forth in claim 12, wherein one of the two substrates is an array substrate on which a switching element is formed on a plurality of pixel areas, a transmission area being formed on both sides of the light reflection layer formed on the array substrate and the light reflection layer between the light transmission areas being within 400 μm in width.

56. A liquid crystal display as set forth in claim 55, wherein a color filter or a reflection electrode functioning as a mask when irradiating light from a back face of the array substrate to the

sealing material are formed on the array substrate.